



A.D. 1870, 7th *MAY*. N° 1312.

SPECIFICATION

OF

LUDWIG MOND & JAMES HARGREAVES.

MANUFACTURE OF CHLORINE.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

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1870.



A.D. 1870, 7th MAY. N° 1312.

Manufacture of Chlorine.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Ludwig Mond and James Hargreaves at the Office of the Commissioners of Patents, with their Petition, on the 7th May 1870.

We, LUDWIG MOND, of Farnworth-within-Widnes, in the County
5 of Lancaster, Chemist, and JAMES HARGREAVES, of Appleton-within-Widnes, in the same County, Chemist, do hereby declare the nature of the said Invention for “IMPROVEMENTS IN THE MANUFACTURE OF CHLORINE,” to be as follows :—

Our process consists in the decomposition of hydrochloric acid by
10 chromate of magnesia, causing the formation of chlorine and also of a compound, which for the purpose of this Specification we call reduced chromate. We again oxidise or restore the said reduced chromate by passing, forcing, or drawing air over, through, or amongst the said reduced chromate kept at a suitable temperature, and use it again to decompose
15 hydrochloric acid, and so on.

We effect the formation of chlorine and the restoration of the chromate of magnesia either by treating the chromate of magnesia with liquid hydrochloric acid, then boiling the resulting liquid to dryness and heating the residue in any suitable furnace or other apparatus with access

Mond & Hargreaves' Improvements in the Manufacture of Chlorine.

of air; or by passing, forcing, or drawing hydrochloric acid gas and air, which may be previously heated simultaneously or alternately over, through, or amongst the chromate of magnesia contained in any suitable vessel or tower and kept at a proper temperature; or instead of using chromate of magnesia in the manner aforesaid, we use a mixture of 5 oxide of chromium or chloride of chromium with magnesia or chloride of magnesium. We prefer to use magnesia or chloride of magnesium as the base in combination with chromic acid, oxide of chromium, or chloride of chromium, and for brevity we have only mentioned magnesia and chloride of magnesium as the bases to be used, but we wish 10 it to be understood that we do not confine ourselves thereto, inasmuch as other bases, such as the alkalies, alkaline earths, and alumina, or the corresponding chlorides may also be used or any mixture of them.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1870.